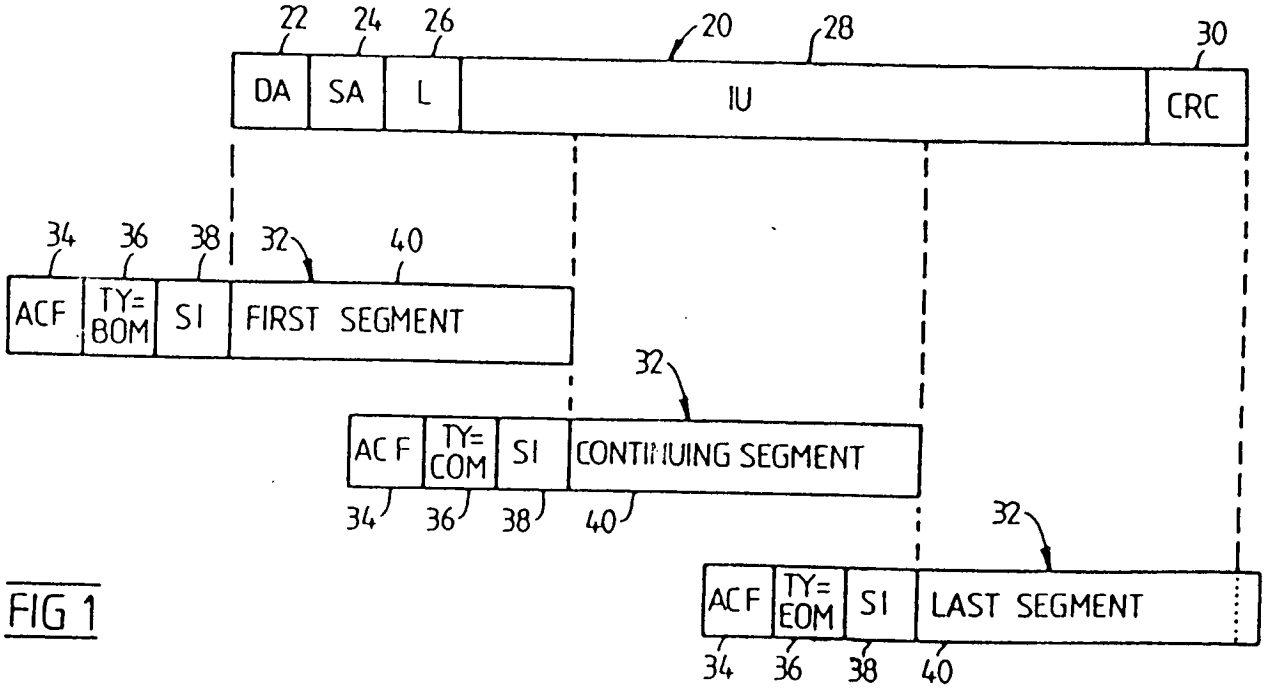

22
24
26
20
28
30
DA
SA
L
IU
CRC
34
36
38
32
40
ACF
TY= BOM
SI
FIRST SEGMENT
32
ACF
TY= COM
SI
CONTINUING SEGMENT
34
36
38
40
32
ACF
TY= EOM
SI
LAST SEGMENT
34
36
38
40

FIG 1

TOTE20"5276660

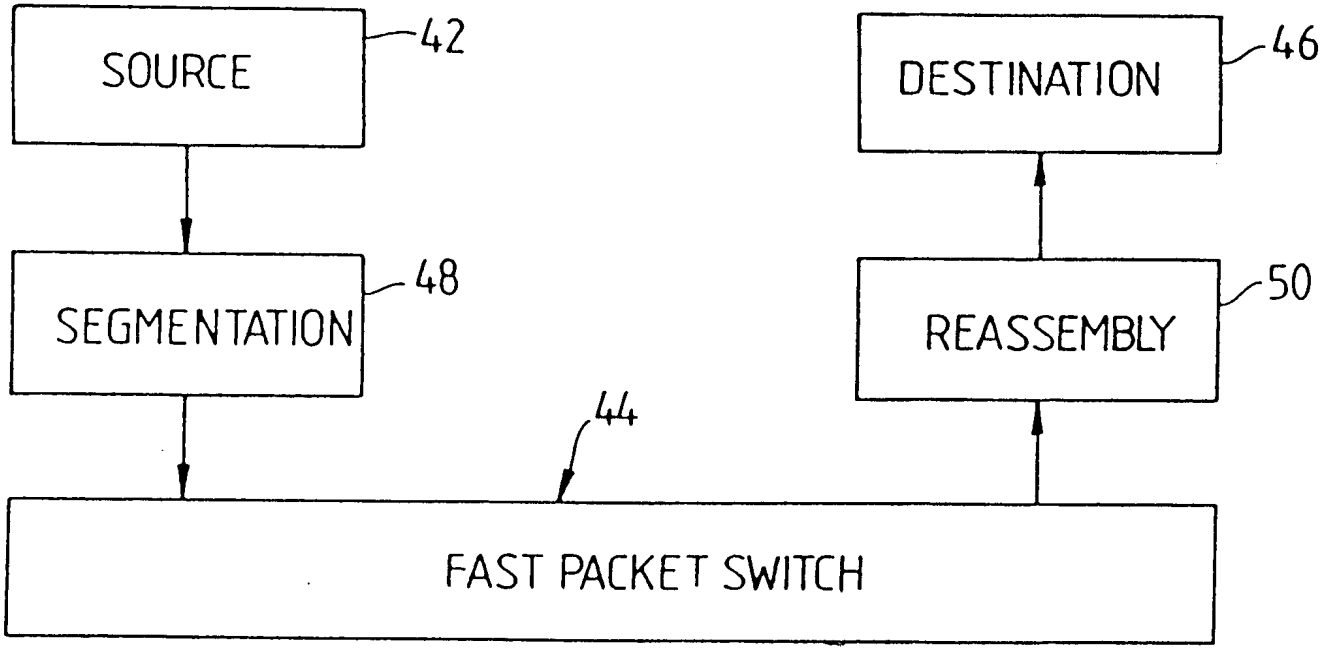


FIG 2

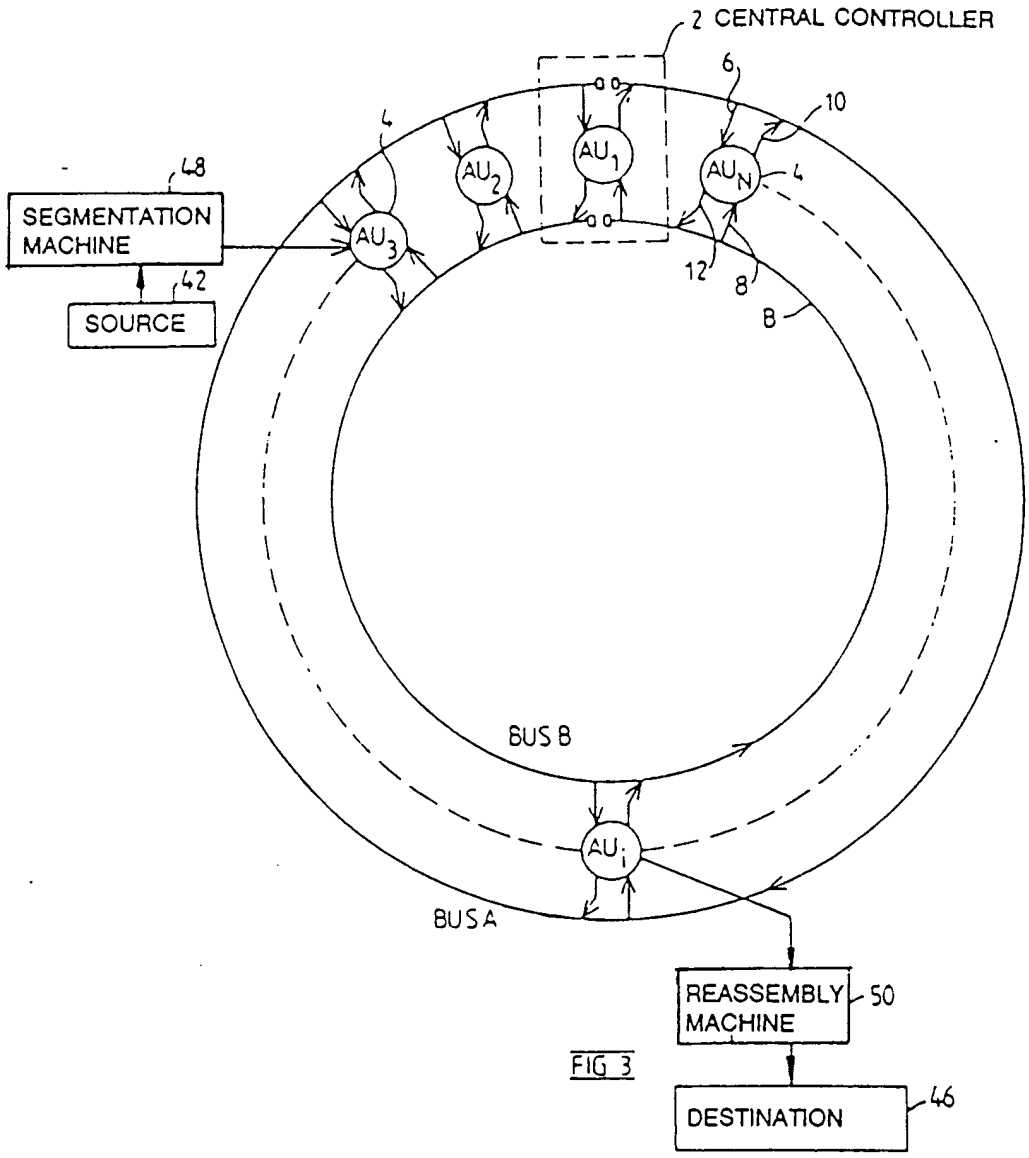

2 CENTRAL CONTROLLER
6
10
4
48
SEGMENTATION MACHINE
42
SOURCE
AU3
AU2
AU1
AUN
12
8
B
BUS B
AUi
BUS A
REASSEMBLY MACHINE
50
DESTINATION
46

FIG 3

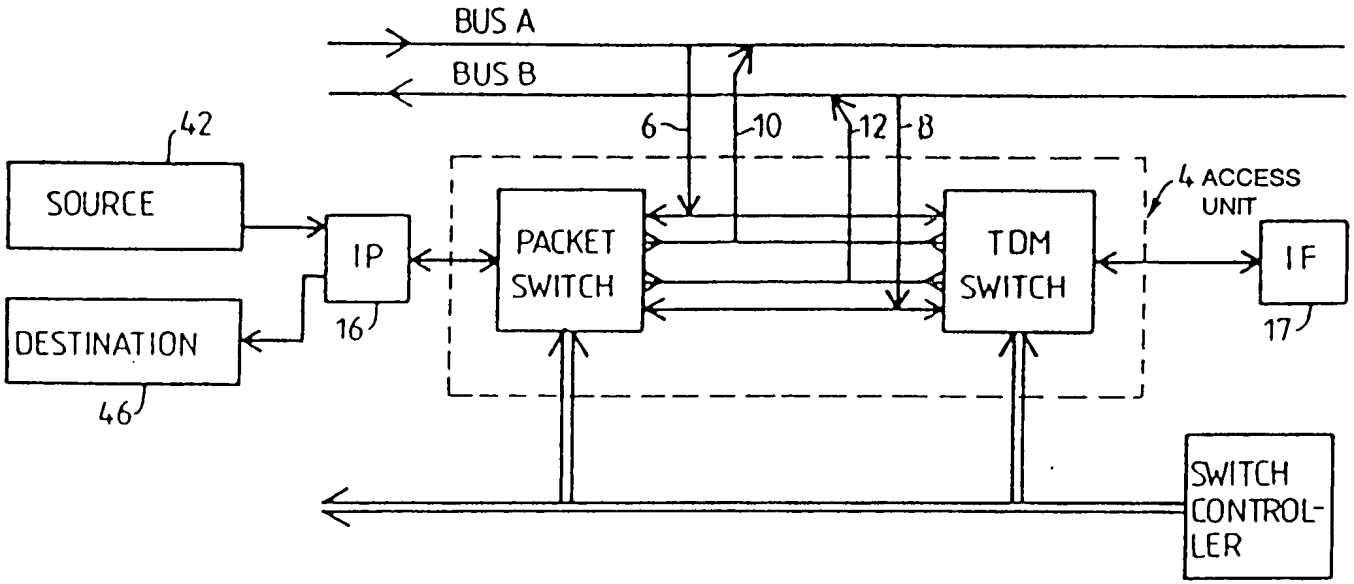

BUS A
BUS B
42
SOURCE
DESTINATION
46
IP
16
6
10
12
8
PACKET SWITCH
TDM SWITCH
4 ACCESS UNIT
IF
17
SWITCH CONTROL-LER

FIG 4

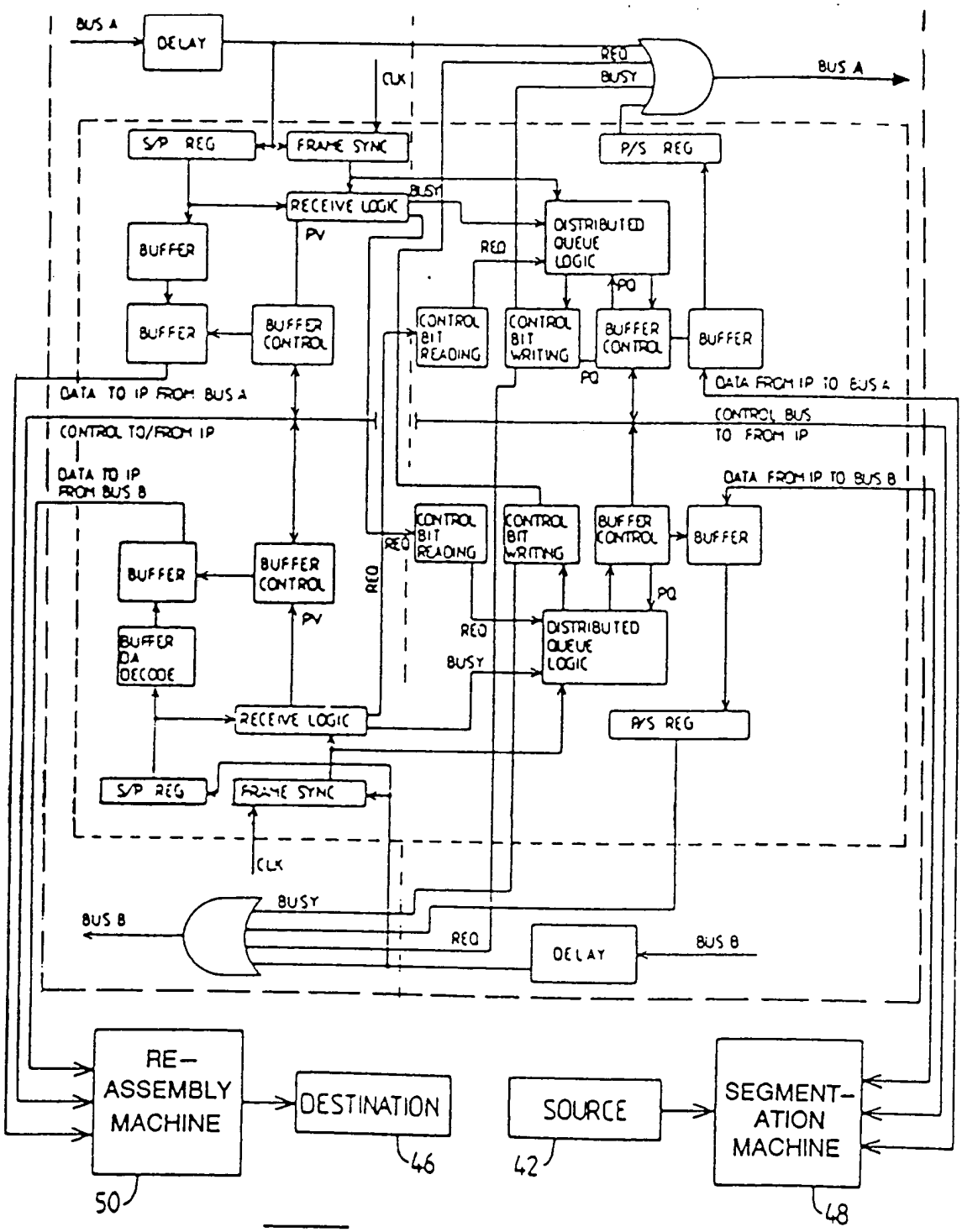

BUS A
DELAY
REQ
BUSY
BUS A
CLK
S/P REG
FRAME SYNC
P/S REG
BUSY
RECEIVE LOGIC
DISTRIBUTED QUEUE LOGIC
BUFFER
PV
REQ
PQ
BUFFER
BUFFER CONTROL
CONTROL BIT READING
CONTROL BIT WRITING
BUFFER CONTROL
BUFFER
PQ
DATA TO IP FROM BUS A
DATA FROM IP TO BUS A
CONTROL TO/FROM IP
CONTROL BUS TO FROM IP
DATA TO IP FROM BUS B
DATA FROM IP TO BUS B
CONTROL BIT READING
CONTROL BIT WRITING
BUFFER CONTROL
BUFFER
BUFFER
BUFFER CONTROL
REQ
PV
PQ
BUFFER DA DECODE
REQ
DISTRIBUTED QUEUE LOGIC
BUSY
RECEIVE LOGIC
P/S REG
S/P REG
FRAME SYNC
CLK
BUSY
BUS B
REQ
DELAY
BUS B
RE-ASSEMBLY MACHINE
DESTINATION
46
SOURCE
42
SEGMENT-ATION MACHINE
50
48

FIG 5

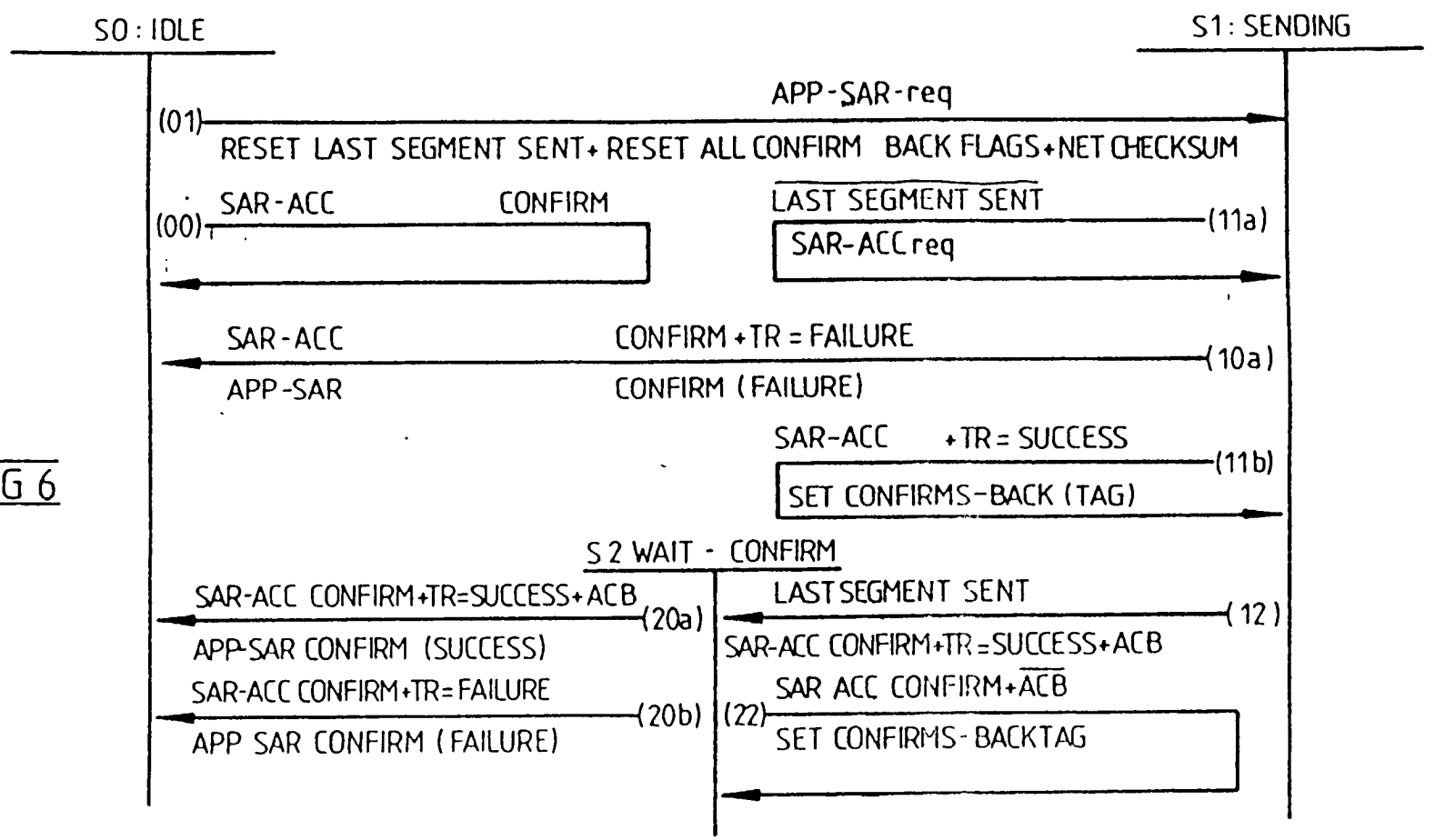
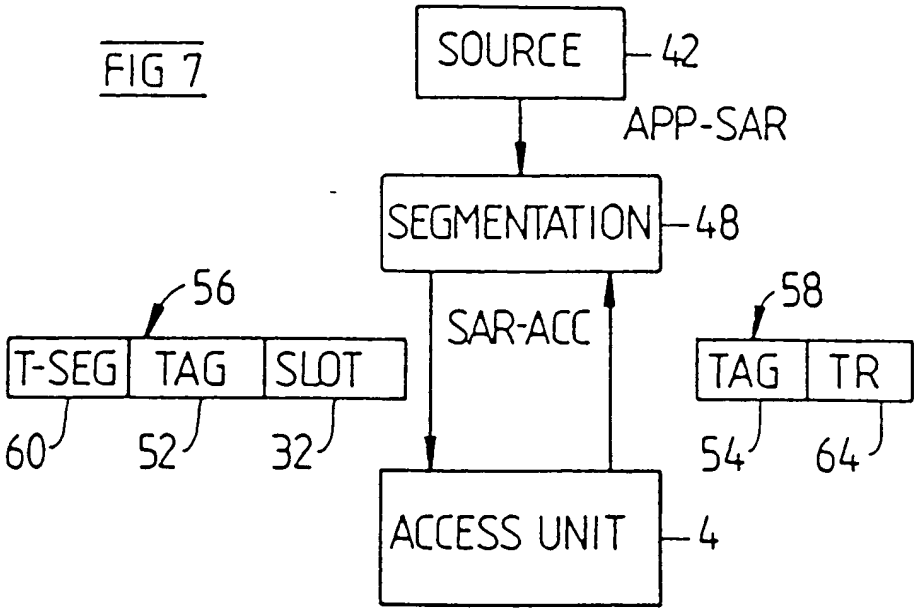

S0 : IDLE
S1 : SENDING
APP-SAR-req
(01)
RESET LAST SEGMENT SENT+ RESET ALL CONFIRM BACK FLAGS+NET CHECKSUM
SAR-ACC CONFIRM
(00)
LAST SEGMENT SENT
(11a)
SAR-ACC req
SAR-ACC CONFIRM+TR = FAILURE
(10a)
APP-SAR CONFIRM (FAILURE)
SAR-ACC +TR = SUCCESS
(11b)
SET CONFIRMS-BACK (TAG)
S 2 WAIT - CONFIRM
SAR-ACC CONFIRM+TR=SUCCESS+ACB
(20a)
LAST SEGMENT SENT
(12)
APP-SAR CONFIRM (SUCCESS)
SAR-ACC CONFIRM+TR=SUCCESS+ACB
SAR-ACC CONFIRM+TR=FAILURE
(20b)
SAR ACC CONFIRM+ACB
(22)
APP SAR CONFIRM (FAILURE)
SET CONFIRMS-BACKTAG

FIG 6

FIG 7


SOURCE
42
APP-SAR
SEGMENTATION
48
56
58
SAR-ACC
T-SEG
TAG
SLOT
TAG
TR
60
52
32
54
64
ACCESS UNIT
4

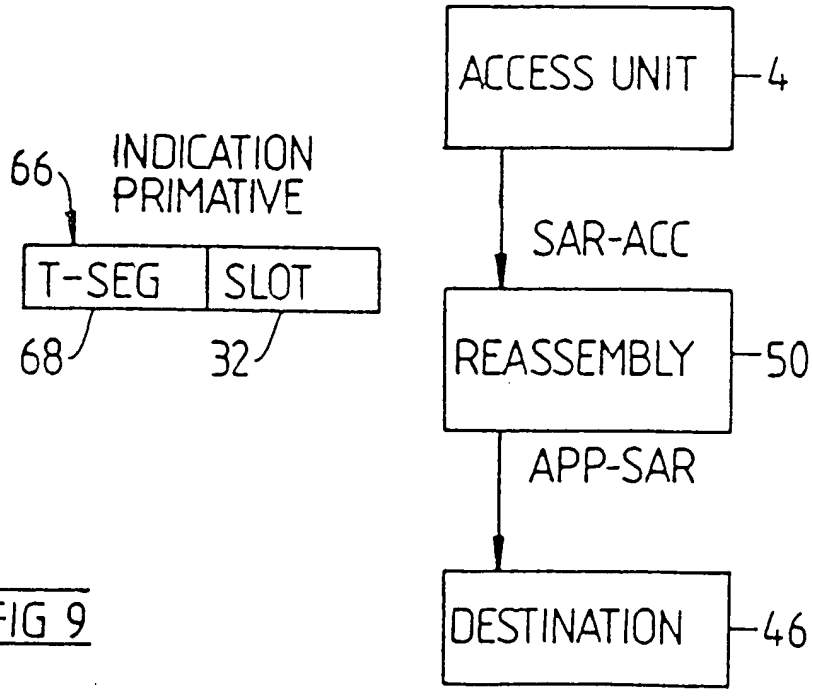

ACCESS UNIT
4
66
INDICATION
PRIMATIVE
SAR-ACC
T-SEG
SLOT
REASSEMBLY
50
68
32
APP-SAR
DESTINATION
46

FIG 9

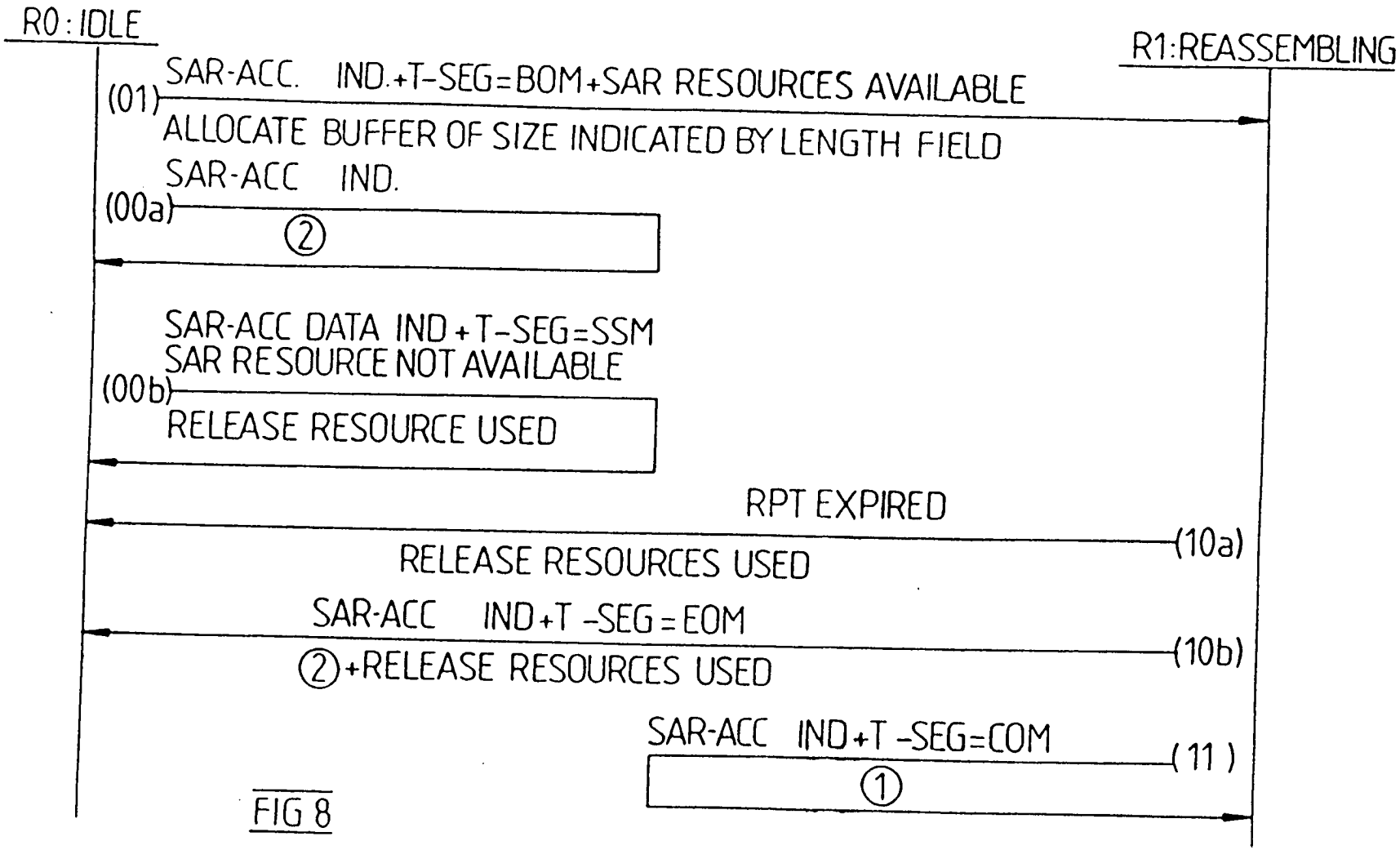

R0 : IDLE
R1:REASSEMBLING
(01) SAR-ACC. IND.+T-SEG=BOM+SAR RESOURCES AVAILABLE
ALLOCATE BUFFER OF SIZE INDICATED BY LENGTH FIELD
SAR-ACC IND.
(00a)
②
SAR-ACC DATA IND+T-SEG=SSM
SAR RESOURCE NOT AVAILABLE
(00b)
RELEASE RESOURCE USED
RPT EXPIRED
(10a)
RELEASE RESOURCES USED
SAR-ACC IND+T-SEG=EOM
(10b)
②+RELEASE RESOURCES USED
SAR-ACC IND+T-SEG=COM
(11)
①

FIG 8

EP 0 573 102 A2

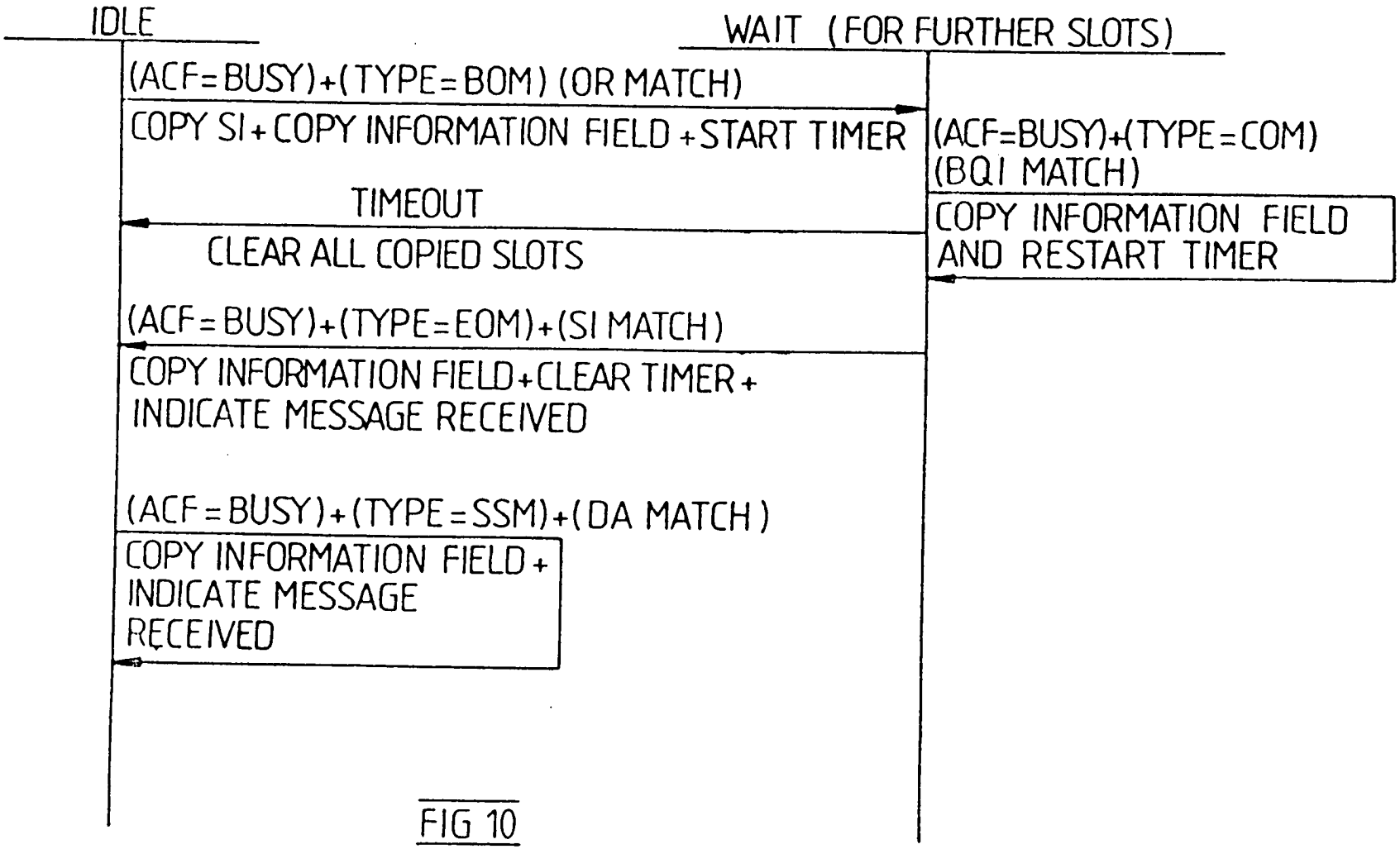


FIG 10

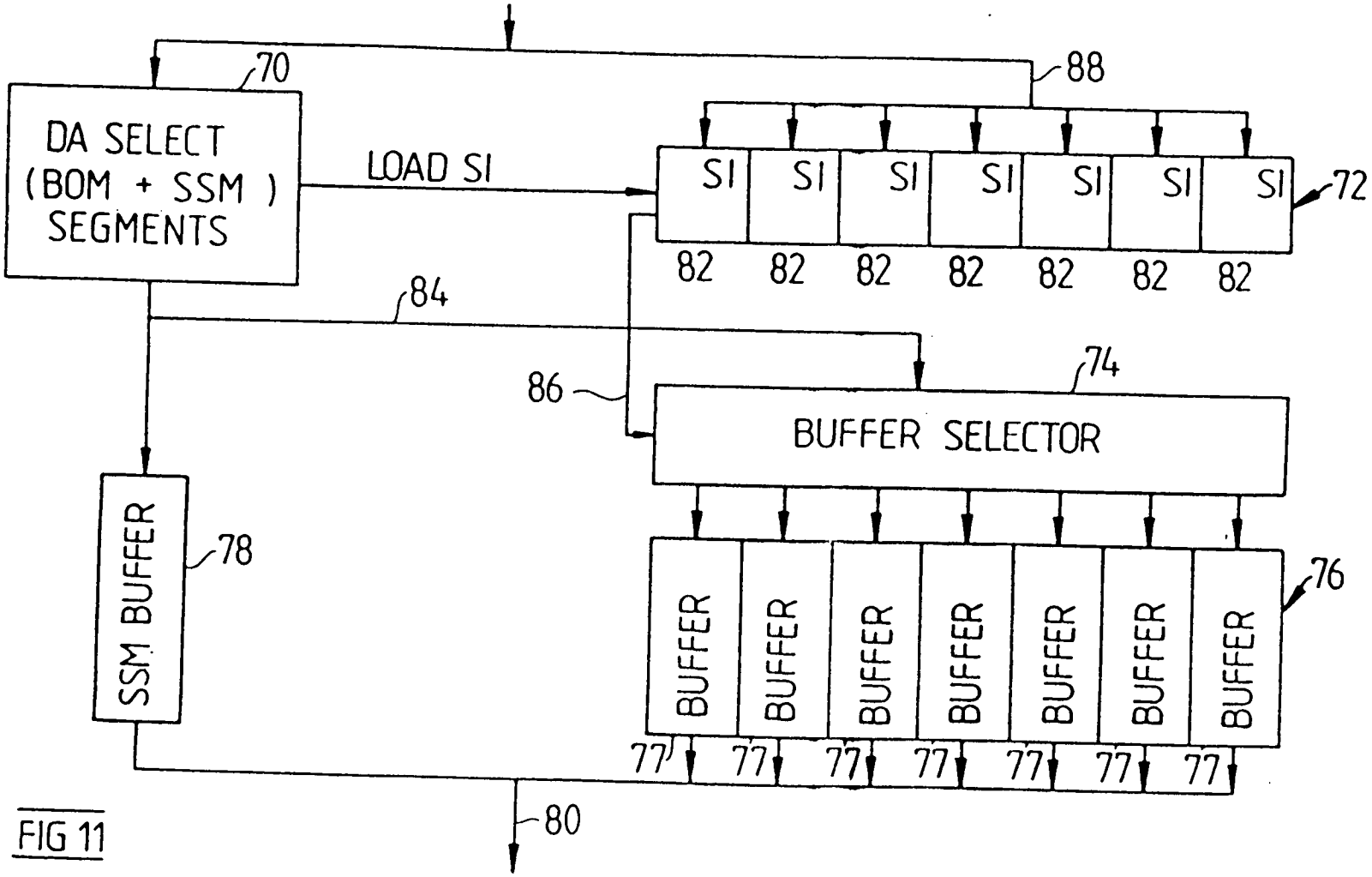

70
DA SELECT
(BOM + SSM)
SEGMENTS
LOAD SI
88
SI
SI
SI
SI
SI
SI
SI
72
82
82
82
82
82
82
82
84
86
74
BUFFER SELECTOR
SSM BUFFER
78
BUFFER
BUFFER
BUFFER
BUFFER
BUFFER
BUFFER
BUFFER
76
77
77
77
77
77
77
77
80

FIG 11

EP 0 525 250 A1

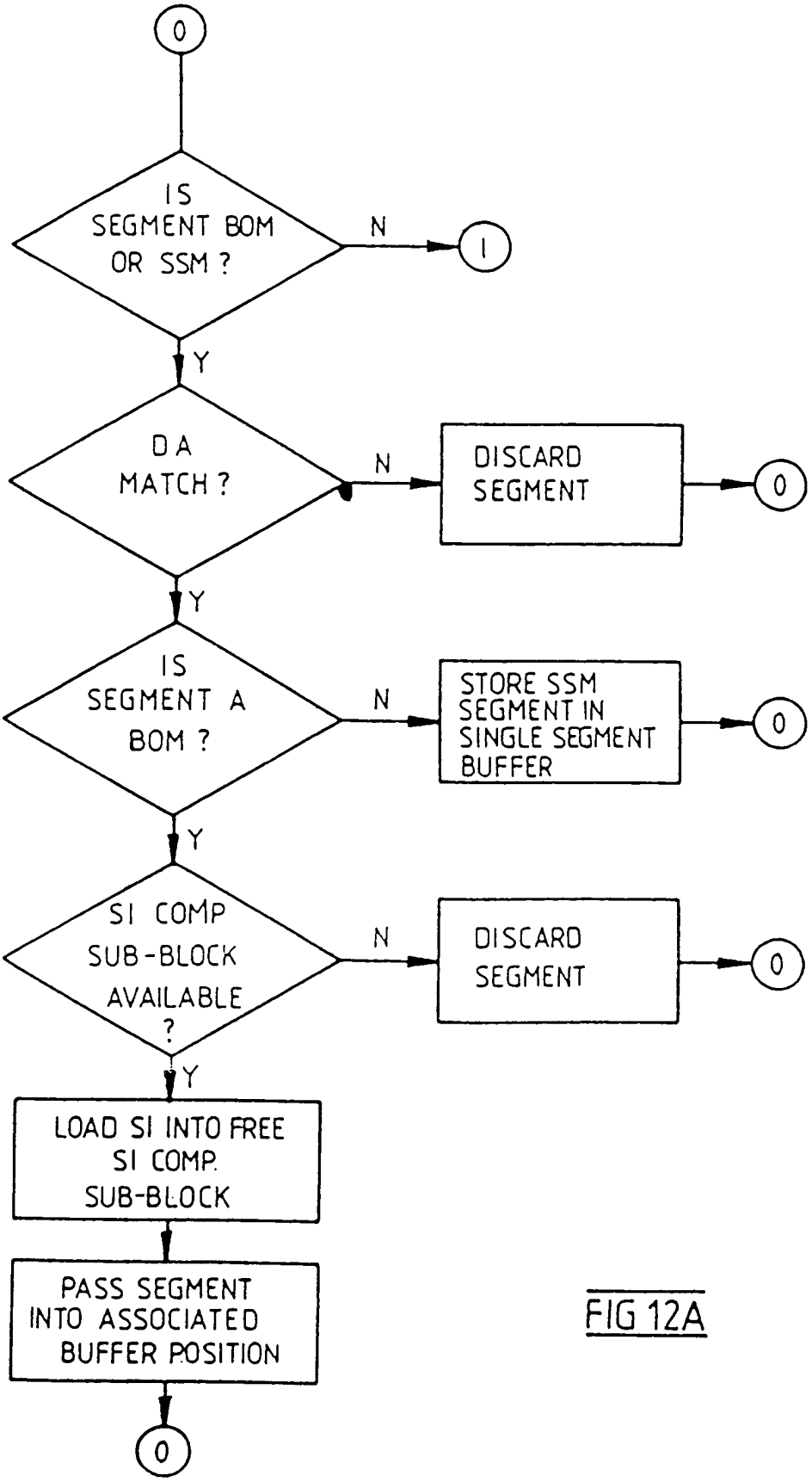


FIG 12A

EP 0 573 263 A2

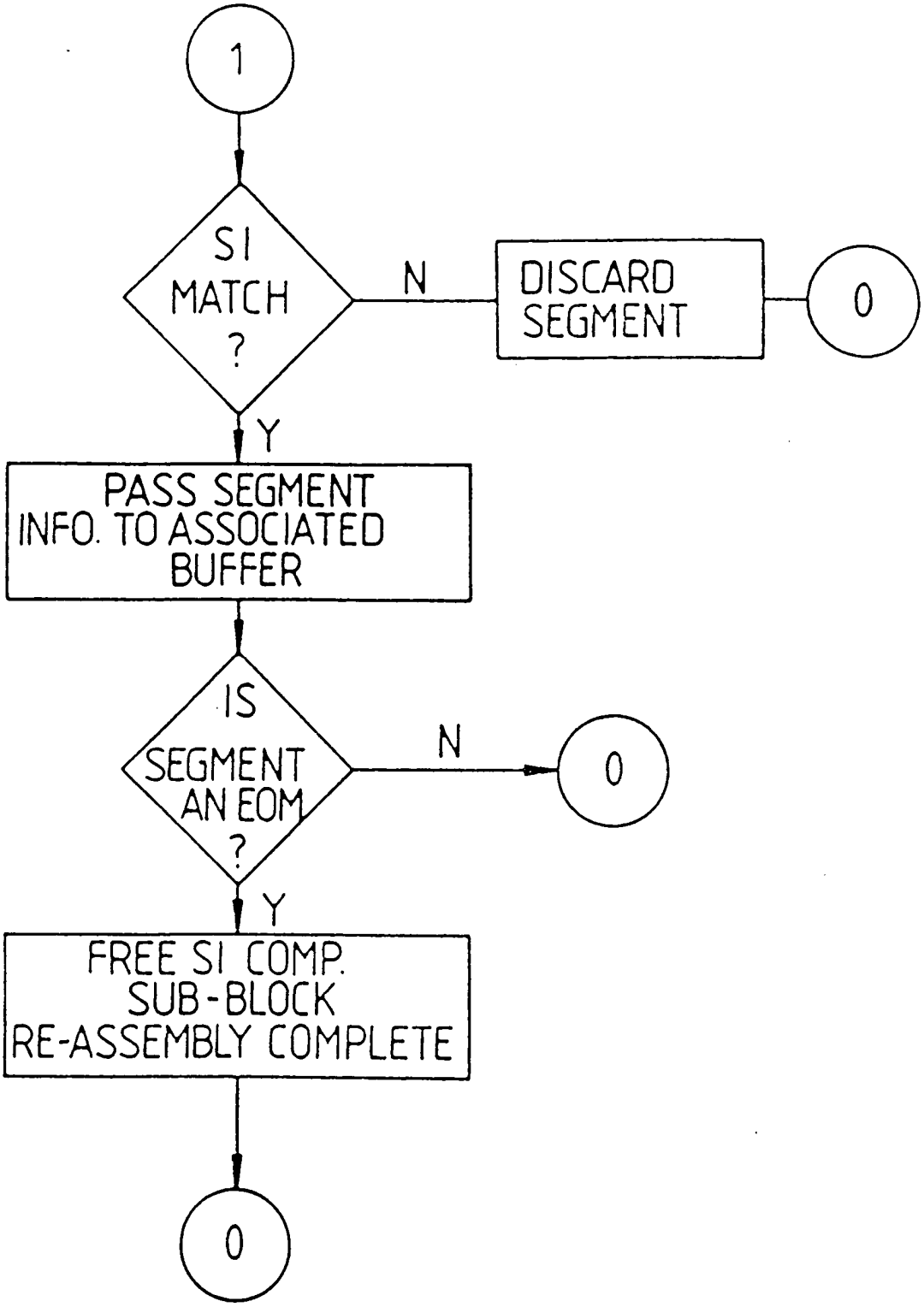


FIG 12B